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### Digital Night Vision Monocular

Operating Instructions

Model: **PSHTCM92** [Contents]

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#### PSHTCM92

### Overview



[Name] Digital Nigh[Model] PSHTCM92

Digital Night Vision Monocular

- It could be used during the day or at night, with the photo shooting, video shooting, playback functions. It achieves 5X optical zoom and 8X digital zoom.
- In Day time observation: unit can take video, take picture and audio recording. Full color, resolution is VGA 640\*480.
- In night time observation: under low light or no light condition, use invisible LED illuminate light can see up to 200 meter target. Black and white image, can take video, picture and audio recording..
- Can use external Micro SD storage card, 2G-32G, video time can be up to 16 hours.

#### PSHTCM92

### Overview

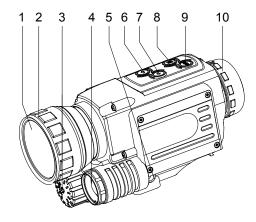
- With USB port, unit can transport the data to your computer and recharge the battery.
- With TV and AV out jack, unit can connect to P or N video equipment.
- Power supply: use one 18650 rechargeable lithium battery.
- Battery time: day time 4 hours, night time (with all LED on) 2 hours.
- It is the perfect optical device to enhance human's visual senses..

## **Operating Hints**

#### 【Operating Hints】

- Night Vision Monocular is the optical instrument to obtain the images of objects under the low light and night situation.
- Infrared Illuminator is equipped. It applies to use in the full dark environment.
- Turn the infrared illuminator on when the monocular works in the dark. Adjusting the brightness of infrared illuminator regarding to the distance of objects. Low level illuminance transducer is equipped also. If there is any light resource existed, the infrared illuminator need not to be turned on, adjusting the focal length of objective lens only.
- Up to 1.5 hour runtime without the use of infrared illuminator. Up to 1 hour with IR illuminator on.

### Components



1 - Objective Cover

2 - Objective Focus Wheel

3 –Battery compartment

4 - Infrared Illuminator

5 –Socket Door

6 - DOWN

7 - UP

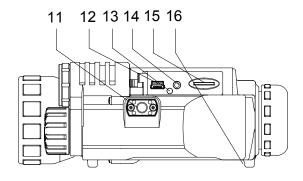
8 -Feature choose button

9 -On off/feature confirmation button

10 -Eye cup

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Components



- 11 Tripod Receptacle
- 12 USB2.0 socket
- 13 Charge Indicator
- 14 -[AV OUT] Outlets
- 15 Micro SD card slot
- 16 -Hand Strap hole

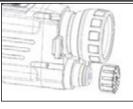
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### **Operating Instructions**

#### **Battery Installation**

Unscrew the battery cover and insert the battery with negative



electrodes bottomed (using a coin in the groove if needed). The battery is installed correctly if the screen could be lighten up after you screw the cover back then press the Power button, if not, please double check the above steps until the viewer works normally.

If the monocular doesn't work, please return it for repair after you reconfirm the battery is in good condition and the cover has been screwed down well.

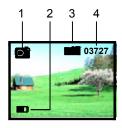
#### [Announcements]

The model of battery shall conform to the requirements.;

Ensure the electric quantity is full enough.; Note the positive and negative electrodes.

#### [Power On]

- Take the objective cover down.
- Long press#9 for 3 seconds, look through Eyecup#10, the monocular works



well if the screen is lightened and icons are shown normally (Pictured at right).

- Icons description:
  - 1 Current mode(Photo shooting)
  - 2 Battery charge indicator
  - 3 Micro SD card in
  - 4 Image Capacity Remaining

#### [Power Off]

In any mode, long press #17 for 3 seconds to turn the monocular off.

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### **Operating Instructions**

#### **[Scenery Observation]**

- Remove the objective cover, in the observing (photo shooting) mode, aim the objects which need to be observed, look at the screen from Eyecup#10.
- 1. Adjust the diopter ring#10 to get the sharp images.
- 2. Adjust the objective focus wheel to get the sharpest image.
- Automatic fine-tuning control is operated by viewer according to the average brightness of scenery centrally.
- Digital zoom will be implemented by pressing #6 and #7 ranged at 1X to 8X.
- If the light resource is enough, turn the auxiliary light off to save the power.
- On the contrary, turn the auxiliary light on and then adjust the brightness to make the observation easily.

#### [Announcements]

• Don't block the auxiliary light.

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## **Operating Instructions**

#### 【Brightness Adjustment】

Press#8 in the observing (Photo shooting) mode.

Enter the brightness adjustment menu, just as the picture at right showed, the number after



"Bright:" means the current brightness of screen.

Press#8 to make "\*" front of "Bright:" to regulate brightness of screen.

The brightness ranged at 1 to 9 by pressing #6 and #7.

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## **Operating Instructions**

#### [Adjustment for Illumination]

• In the observing (photo shooting and videoing) mode, press #8 to enter the auxiliary light adjustment menu.



The index after Lamp states the brightness of auxiliary light just as the picture showed.

Press#8 to make "\*" front of "Lamp:" to regulate brightness of auxiliary light.

• Press #7, #6 to adjust the infrared illuminator ranged at 0~9(9-lightest, 0-turn off).

"NV4" will be flickered if the illustrator is opened and the menu is quitted. It's brightness of Night Vision light.



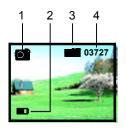
#### [Announcements]

In any mode above, the menu will be disappeared if there is not any operation within 5 seconds.

# Operating Instructions

#### **[Photo Shooting]**

 The monocular enters the Observing mode automatically after starting up.



Icons Instructions:

- 1 Current Mode (Photo Shooting)
- 2 Battery Charge Indicator
- 3 Micro SD card in
- 4 Images Capacity Remaining
- #8 works as the shutter in this mode. Each press gets one photo. The photo will be saved automatically in the Micro SD card.
- The images capacity remaining is counted by the storage of Micro SD card.

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# **Operating Instructions**

#### [Playback]

• In the observing mode, press#8 to make "\*" front of "Record", then press #6 or #7 to get into the video shooting mode.

In the video shooting mode, press #6 and #7 to choose the "playback", then press#8 to use the playback function.

- Photo Playback Menu Instructions:
  - 1. Current Mode(Playback)Battery Life
  - 2. Battery Life
  - 3. Playing
  - 4. Document qty

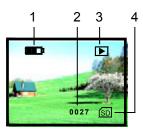
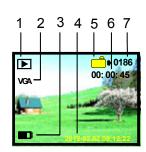


Photo Playback

## **Operating Instructions**

- Video Playback Menu Instructions:
  - 1. Playback
  - 2. VGA Video Format
  - 3. Battery Life
  - 4. Shooting Date
  - 5. Current No. of video
  - 6. Shooting Time
  - 7. Document qty



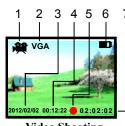
Video Playback

- In the playback mode, press #7 and #6 to view the photos and videos.
- The playing order of photos and videos is based on the shooting order.
- Press #9 to play the video and repress to stop it.
- Press#8 to return Photo Shooting mode.

# Operating Instructions

#### **[Video Shooting]**

In the observing mode, press#8 to make "\*" front of "Record", then press #6 or #7 to get into the video shooting mode.



Video Shooting

Menu Descriptions:

- 1. Current Mode(Video Shooting)
- 2. VGA resolution 3. Date 4. Timekeeping
- 5. Video Shooting 6. Battery Life
- 7. Video Timing
- Press #9 to start shooting, icon 2 turns into the timekeeping and the viewer record the video automatically.
- In the shooting mode, the video clips will be saved in the Micro SD card automatically.
- The available time is counted by the storage of Micro SD card, the error is caused.
- Press #9 to pause.

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### **Operating Instructions**

#### [AUTO Mode]

• Press #8 to make "\*" front of "AUTO", then press #6 or #7 to change in "YES" and "NO"



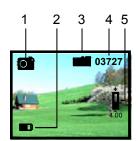
• The NV monocular can be mode setting automatically by detecting the light intensity of day or night when the parameter was set up in "Auto Yes". When the parameter was set up in "Auto No", it turns to manual operation state. Every mode can be set up by using the buttons to get more delicate and sharper viewing images on the screen.

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## **Operating Instructions**

#### [Electronic Zoom]

- In the photo (observation), video mode, which can electronic zooming the scene.
- Digital zoom will be implemented by pressing #6 and #7 ranged at 1X to 8X.
- 5. Shows the magnification.



#### **[** Monitor Connection ]

- Connect the monitor to video output interface(#8).
- Display on the screen can switch to the external monitor.

#### **[PCs Connection]**

- The viewer is equipped with USB 2.0 interface.
- PC would identify the monocular automatically and read the content in the Micro SD card.
- The battery would be charged by connection of PCs.
- The data transmission by USB connection works on the premise that the viewer must be equipped with a battery or connected with an external power supply.

#### [Announcements]

The data transfers improperly if there aren't any power supplies with the monocular.

The battery is in charging state when the monocular connects with PCs.

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## Power Management

#### **[Auto Power Off]**

 The monocular won't be turned off automatically in the video shooting and playback mode.

#### **[Battery Selection]**

- High capacity chargeable lithium-ion battery, 1700mAh, 3.7V.
- Please ensure the battery would be charged for 10 hours in the first time to make it works best.

#### **External Power**

- The monocular is equipped with USB external power.
- The battery would be charged when the monocular connects with external power.

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# Power Management

#### [Announcements]

Battery would be charged also when the monocular connects with PC.

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### **Basic Parameters**

#### **[Basic Parameters]**

Type	Items	Index
	Magnification	4.5
	Dimension of Objectives	φ40mm
Ontical	FOV	5°x3.75°
Optical Performance	Ocular Adjustable Range	±10
	Observing Distance(Low Light Environment)	2m∼∞
	Observing Distance(Dark Environment)	~200m

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## Basic Parameters

	Operating Voltage	3.7V DC
Power	Replaceable Battery	Lithium-ion
		rechargeable
		battery
	Charging Source	5.0V/2000mA
		Adapter
Other	Magguramant(I *W*II)	158 x 58 x 77
	Measurement(L*W*H))	mm
	Weight	400g

## Basic Parameters

Item Included	Amount
AV Video Cable	1
USB Cable	1
Pouch	1
External Power Adapter	1
Operating Instructions	1
Hand Grip Strap	1
Battery	1
Cloths	1

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# Operating Environment

#### **[Operating Environment and Announcements]**

- Keep the monocular in its soft pouch. When not in
- Operating temperature ranged at  $-5\sim40^{\circ}$ C. Relative humidity is 80%.
- In order to avoid the wetness and mildew, please keep it in the clear and dry environment. Avoiding the great pressure and solar radiation also please.
- When the image jitter happens or the LCD couldn't be lighten, please charge the battery in time.
- Blow away the dusts before wipe the optical surface. If the monocular won't be used for a long time, please keep charge the battery occasionally to avoid the effectiveness lose.

